Engineers Week

NASAGoddard Space Flight Center
Education Programs
Code 130.3
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Education Officer

Visitation Handbook
GSFC Professional Staff
2003

Visitation Guidelines and Planning

Speakers are encouraged to complete a visitation referral that will highlight key information that will assist in the partnership of the Engineer and teacher. This information is acquired from the host teacher and the lead staff member from the Education Office and will help organize the presentation in both content and delivery. In order to facilitate the presentation day and allow for the speaker to be adequately prepared, the following list serves as a tool for assisting the Engineer to consolidate resources required to successfully complete the Engineering Week activities. It is suggested that the following forms be completed as a guide in planning your visitation *prior* to the presentation date:

1. Engineers plan for “Getting Ready for the Visit”
2. Checklist for visitation day
3. My Plan for the Engineers Week visit

Engineer's Week

Getting Ready For The Visit

The **Date** of the Visit:_____

The Name of the **School**:_____

The Name of the **Contact Person**:_____

Telephone Number: _____Fax Number:_____

Confirmation call to school at least 7 days prior to Visit:

What time should I arrive:_____

What are the ages of the *Students*?_____ How many *Groups*:_____
Number of students per Group:_____

Anything special I should know about the school and the students?_____

_____

What is the Time Frame that I will be with the students?_____

Is there anything special you would like me to discuss:_____

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*Give the contact person/teacher a short overview of what you plan to do and ask if they feel this will work with their students.

Comments from the Teacher:_____

Ask for any special equipment: VCR, Overhead Projector, Slide Projector

Get specific Directions to the school and any special procedures that the school follows:

1. Check in Main Office for a *Visitors Pass* due to increased security in the schools;
2. Plan an additional 15-20 minutes for *travel* in order to get to the school due to traffic;
3. Should *weather* be a factor, check the radio for announcements concerning school closings or changes in schedule.

Give the Contact Person/Teacher your phone number in case something should occur.

Engineer's Week

Checklist For The Visitation Day

_____ **Directions** to the School

_____**Presentation Notes**, Materials, Pictures, Posters, etc.

_____ Enough **Handouts**, Posters, Stickers, etc. for EACH Student/Teacher in the group

_____A National Engineers Week **Portfolio** for the Teacher

_____**Equipment** needed: Be sure it WORKS!

_____ Review the **Route** to school. *DO NOT BE LATE*.

_____ If **Weather** is questionable, allow time to check radio/TV for school closing or late schedules. *Two Hours Late*, means the Engineers Program will be cancelled!

_____ Check in at the Main Office for a **visitors pass**.

_____**Teacher MUST be present during your presentation**.

Engineer's Week

My Plan For The Visit

Topic_____

Engage (10 minutes)
Grab their interest: (Some type of demonstration)

Explore (15 minutes)
A Presentation: (Slides, Short Video or a Talk on *their* level)

Explanation (15 minutes)
Have the students actively involved: (Either as a complete group or in small groups with a simple hands-on activity)

Extension (10 minutes)
Students are given time to link information with related concepts, parallel ideas:

Evaluate (10 minutes)
Let students ask questions: (If they do not have any questions, initiate some!)

5 E's Lesson Components

I. Engagement: The activities in this section capture the student's attention, stimulate their thinking and help them access prior knowledge.	• Demonstration - teacher and/or student • Reading -from a current media release, science journal,book, piece of literature (biography, essay, poem,etc.) • Free write • Analyze a graphic organizer
II. Exploration: In this section students are given time to think, plan, investigate, and organize collected information	• Reading authentic resources to collect information - to answer an open-ended question - to make a decision • Solve a problem • Construct a model • Experiment - design and/or - perform
III. Explanation: Students are now involved in an analysis of their exploration. Their understanding is clarified and modified because of reflective activities	• Student analysis and explanation • Supporting ideas with evidence • Reading and discussion
IV. Extension: This section gives students the opportunity to expand and solidify their understanding of the concept and/or apply it to a real world situation	• Problem solving • Experimental inquiry • Thinking Skills Activities - classifying, abstracting, error analysis, etc. • Decision-making
V. Evaluation	• Teacher and/or student generated scoring tools or rubrics

Engineer's Week

Presentation Suggestions

What or Who *influenced* your career decision?

What was the *best* and *worst* advice you received about making a career choice?

What *biases* do you feel the general public has about science and engineering careers?

What career path did you follow? Was it the one you planned or was it an unexpected opportunity?

What *challenges* have you had to face in your career?

How important is *math and science* for an individual who wants to become an engineer?

What *job opportunities* do you see in the future for engineers? Are there some areas of engineering more promising than others?

How would you describe a *typical day* in the life of an engineer?

What kind of *tasks* or jobs do you routinely perform as an engineer?

Of all the *projects* you have worked on, which one was the most interesting?

Is working at NASA (a government agency) as an engineer any different than working for a private company as an engineer?